

Claims

1. Method of transferring user data packets from a terminal to a mainframe
5 of an S-CDMA point to multi-point system, comprising the steps of a
repeated transmission of a reference data packet coded with a pilot code
for the duration of the connection between terminal and mainframe,
wherein the reference data packet contains previously known information,
and the sequential sending of user data packets coded with at least one
10 communication code, which in each case comprise the user information to
be transferred.
2. Method according to Claim 1, comprising the steps: each terminal is
allocated a pilot code, at least for the duration of a connection, and each
15 terminal is allocated at least one communication code at least for the
duration of the transfer of a user data packet.
3. Method according to Claim 1 comprising the step: the coding of the
reference data packet with the pilot code takes place synchronously in time
20 to the coding of the user data packets with the at least one communication
code.
4. Method according to Claim 3, comprising the step: from each reference
data packet and user data packet or user data packets synchronously
25 coded in time a summation signal is formed which, after subsequent
modulation, is transmitted to the mainframe.
5. Method according to Claim 1, comprising the step: at the times at which a
user data packet is being transmitted no reference data packet is
30 transmitted.

6. Method according to Claim 1, wherein the pilot codes are CDMA codes
and the communication codes are CDMA codes, wherein the pilot codes
originate from a different CDMA code family from the communication
5 codes and wherein no pilot code is identical to any communication code.
7. Method according to Claim 1, wherein the pilot codes are orthogonal to
one another and the communication codes are orthogonal to one another.
- 10 8. Method according to Claim 1, wherein the pilot codes are not orthogonal
to one another and the communication codes are orthogonal to one
another.
- 15 9. Mainframe for an S-CDMA point to multi-point system for transferring user
data packets from terminals to the mainframe, said mainframe being
suitable for repeatedly receiving a reference data packet coded with a pilot
code and containing previously known information on each connection to
a terminal and for deriving synchronisation information from the signal of
the reference data packet and the mainframe is suitable for receiving user
data packets, coded with at least one communication code and
20 comprising user information on each connection to a terminal.
- 25 10. Mainframe according to Claim 9, said the mainframe being suitable for
deriving from the signal of the reference data packet information on the
signal quality.
11. Mainframe according to Claim 9, comprising a control unit to allocate pilot
codes and communication codes to terminals, wherein for each connection
of a terminal to the mainframe a pilot code and at least one
30 communication code at least for the duration of the transfer of a user data
packet is assigned by the control unit.

12. Mainframe according to Claim 9, comprising at least one measuring unit to determine the signal-to-noise ratio for each connection to a terminal from the received pilot codes.
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13. Mainframe according to Claim 9, comprising at least one measuring and control unit is provided to measure the signal levels of the received reference data packets and for telemetric regulation of the transmitting levels of the terminals for the reference data packets and/or the user data packets as a function of the measured signal levels.
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14. Mainframe according to Claim 9, said mainframe being constructed as a base station for an LMDS system.
15. 15. Transmitting device for an S-CDMA system, comprising a first coder for coding a reference data packet with a pilot code and a second coder for coding user data packets with at least one communication code are provided, wherein the reference data packet contains previously known information and the user data packets comprise the user information to be transferred and an adder is provided for adding the output signals of the coders.
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16. Transmitting device according to Claim 15, comprising a modulator for HF modulation of the output signals of the adder.

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